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JUNE 16TH, 1868.

H. G. ATKINSON, Esq., V.P., IN THE CHAIR.

THE minutes of the previous meeting were read and confirmed.

The following were elected since the last meeting :—

*Fellows*.—Rev. John Gunn, Irstead Rectory, Norfolk ; Andrew Struthers, Esq., Fernando Po, Africa ; C. W. Kaye, Esq., High Bentham, Lancaster.

*Corresponding Members*.—Victor Baron Von Erlanger, Wiesbaden ; Dr. Petermann, Gotha.

*Local Secretary*.—Andrew Struthers, Esq., Fernando Po.

The presents received since the last meeting were announced as under, and thanks were voted to the donors :—

FOR THE LIBRARY.

From the AUTHOR.—Letters to the College of Physicians of Louisville. Dr. H. J. Hul-Cee.

From the INSTITUTE.—Journal Royal United Service Institute.

From the EDITOR.—The Farmers' Journal.

From the EDITOR.—The Medical Press and Circular.

From the AUTHOR.—Ueber das Zweckmässige in der Natur. Professor Schaaffhausen.

From the INSTITUTE.—The Canadian Journal, Dec., 1867.

From J. W. CONRAD COX, Esq.—Lavater's Physiognomy.

FOR THE MUSEUM.

From Dr. DIEZMANN.—Skull of Guatuso Indian ; Skull of Carib, and other articles, from Costa Rica.

From Consul HUTCHINSON.—Eight Skulls from Rosario.

Mr. HUTCHINSON made some explanations respecting the six skulls presented by him to the Society this evening. They were obtained from a graveyard, through which a cutting had been made by the contractors of the Centro-Argentine Railway in Rosario, but no certainty could be arrived at by him as to whether they were the skulls of Argentines (the mixed race of Spaniards and Indians), or of pure Indians. Rosario, as a miserable hamlet, was founded in A.D. 1725, by Don Francisco Godoy and some of the Calchaqui Indians from the frontiers of Santa Fè. It had not much, if any, infusion of the foreign element in it until 1854 ; and the graveyard from which these skulls were taken had ceased to be a burial ground long before that period. Hence he inferred that they were the skulls of the people of the country. Their very curious anatomical formation demanded the attention of the craniologist.

Mr. LLOYD, of Norwich, exhibited some flint implements found near Downham, in Norfolk, and explained the nature of the localities in which they were discovered.

Dr. DONOVAN then read a paper *On the Fundamental Principles of Anthropological Science*, the conclusions of which were given in the three following propositions :—

*Prop.* 1.—That the inborn natural faculties of the mind, whether

of an intellectual or an emotional class, depend on the brain alone for power to perform their functions ; or, in other words, that the brain is the sole physical condition, medium and organ of each and all of the Mental Faculties.

*Prop. 2.*—That the brain is not a single organ, acting as a whole in all its operations, but is composed of as many separate and independent parts, or organs, as there are separate and independent Mental Faculties.

*Prop. 3.*—That the brain is subjected to a law of *size* (which is a measure of power in all things, other conditions of power being duly considered,) and that its separate organs are subjected to like laws.

Mr. DENDY observed that Dr. Donovan had occupied a long time in telling the meeting what they all knew ; and that it would have been better if he had confined his remarks to the main questions, which were, whether the functions of the brain were single or multiple, and whether the size of it was an index of mental qualification. There would be no question that the brain was the organ of the mind, but in the paper Dr. Donovan had completely shunned his own speciality, and had avoided explaining how the quality of the brain is to be indicated by craniology. The attempt to measure the brain by measuring the skull was a perfect fallacy ; and by endeavouring to do so phrenologists were doing infinite harm to the science of the brain—*encephalology*. If they had confined themselves to the early teaching of Gall and Spurzheim, they might have done much good, but when they called craniology *phrenology*, and pretended from measurements of the surface of the skull to tell the quality of the mind, they did injury to the study of mental philosophy. If by measuring the skull they could ascertain the size of the brain, there might be something to be gained ; but it was impossible to measure the brain from the skull, not even its size. The complex condition of the brain was the point that anthropologists should study ; the mere size of it, he contended, could not determine the quality of mind, which depended on the quality and complexity of the convolutions. It was in the intricacy and multiplicity of the convolutions that the brain of man differed from that of the ape, for some apes have a brain relatively as large as the brain of men, but in the case of the ape it is deficient in the number of convolutions.

The REV. DUNBAR HEATH thought it was a fair subject for discussion, which had been raised in Dr. Donovan's paper, to consider what anthropology is ; and he had endeavoured to limit their enquiries to certain questions relating to the mind of man. But if they granted all that he asserted, he was of opinion they would not be one jot nearer towards understanding what man's mind or what anthropology is. Dr. Donovan had given an account of certain imaginings of Mr. Spurgeon and others, but they led to nothing, and gave no information. It was admitted that some external power put things into the mind, which Dr. Donovan said were due to cerebral excitement. But that was no explanation ; they were not an atom the wiser by it. Granting that all he contended for as to the separate functions of the brain were true, how would it explain the observed phenomena ?

Supposing, however, that it did teach something ; he should be far from allowing Dr. Donovan's assumption that it was unnecessary to study anything beyond these organs. Were they to be debarred as anthropologists from doing what they now do, to acquire additional information ? The whole of man was connected with many other things, besides the brain. The brain was fed by the blood, which might thus be said to contain the whole of man. So did the milk. They must, therefore, examine all those things. Then the blood flows in certain channels propelled by the action of the heart, which contained the whole of man quite as much as the brain does. Then, again, a mere fright will sometimes kill a child, who might be frightened to death by the sight of a white surplice. They would have to go to the phenomena of light, which impresses on the retina external forms, to explain such an effect. All these things were connected with the living man, and anthropologists should study savage races as well as anything else to enable them to gain a knowledge of the science of man, for there were differences in their brains, hearts and nervous systems. Anthropology, indeed, presented a vast field for enquiry, all parts of which should be studied, for all were connected with the faculties of man. It might be asked what is the faculty of man ? The theologian says it is the soul ; Dr. Donovan takes it to reside in the organs of the brain, and others consider the memory and other mental powers to represent the peculiar faculty of man. In his (the Rev. Dunbar Heath's) opinion, one of these things was as good as another, for they were all so closely connected that one cannot exist without the other.

Dr. COLLYER was of opinion that the shape of the brain is formed by the skull in all the races on the earth ; and that the brain is the measure of power, must be received as a fact by all physiologists. On an examination of the brain of different persons after death, each one presented a different appearance, which might be regarded as the measure of power. The brains of negroes and those of white men were very different in texture as well as in anatomical structure, one being firm and close, and the other more loose. This measure of power in the brain was of importance in animals as well as in man. When there is no density in the brain there is a want of power, and that peculiarity subsists in the brains of all animals, from the highest to the lowest. All men of nervous power have dense brains. He said he had known Dr. Donovan for twenty-five years, and he admired his tenacity, and the bravery with which he had maintained the truth of his branch of mental study against all opposition. It had been ascertained that different kinds of animals have brains peculiar to themselves, and that the greater number of convolutions the more intelligent is the animal. It must also be admitted that diseases of different parts of the brain affected differently the actions of the mind. The separate actions of different parts of the brain were shown in dreaming ; in which process strange things appear to be real, because during sleep the action of the brain is confined to a few organs. He contended that in a healthy brain the form of the skull is an indication of the form of the brain.

Mr. MACDONALD said the real question was, whether the mental condition of a man could be told by the measurement of his brain. He contended that it could, for he had often determined individual character by examination of the skull, and the results of his observations had been supported by facts.

Dr. DUDGEON said that Dr. Donovan's aim was to limit anthropological science to phrenology, which he emphatically termed mental physiology. He had requested answers to three questions, which he had himself answered affirmatively on a slip of paper he had put into the hands of members. The first of these questions was, "Is the brain the organ of thought?" To this every physiologist would reply that it was,—that thought was in fact a function of the brain. The second question was, are the faculties of the mind located in certain definite parts of the brain—the organs of the phrenologists? Physiologists were compelled to dissent from the doctrines of the phrenologists, for many facts had been observed that militated against the notion of the localization of the cerebral faculties. Thus all phrenologists agreed to place the intellectual faculties in the anterior lobes of the brain, but Trousseau in his *Clinique* mentions the case of an officer who got a bullet right through the anterior lobes of the brain from one temple to the other, and who survived the wound three months, during all which time he enjoyed the perfect exercise of his intellectual faculties. Again, perfect unanimity prevailed among phrenologists as to the cerebellum being the part of the brain that regulated the procreative faculty; but Cruveilhier gives a representation in his pathological anatomy of the brain of an idiotic girl, in which the cerebellum was nearly completely absent, and yet the girl was much addicted to onanism, the perversion of a function which the cerebellum is said to preside over. Again, M. Vulpian, in his work on Physiology, cites an interesting observation of a woman who was affected with erotomania or nymphomania, and in whom the cerebellum was found after death to have its grey substance completely atrophied. M. Flourens destroyed and removed the half of the cerebellum of a cock without affecting the procreative power of the bird. Certain facts lately observed seemed to favour the idea of the localization of one faculty of the brain. M. Broca first called attention to the apparent connexion of the faculty of expressing ideas by words with the posterior part of the third convolution of the left anterior lobe of the brain; for he found that when that part was the subject of disease, the patient was affected with aphasia or inability to express his wishes and thoughts by correct words. This observation was confirmed by several others. He did not know how far this would go to strengthen the doctrines of the phrenologists, for it was observed that disease of the corresponding part of the right side was unattended by aphasia. But subsequent observations by M. Vulpian at the Salpêtrière Hospital, threw doubts on this supposed localization of a cerebral faculty, for he found that in 9 cases where there was this lesion of the portion of the brain alluded to, five of the cases were affected with aphasia, and four were not. With regard to Dr. Donovan's third question, as to the size of the brain being an index

of the intellectual power, that could not be answered absolutely in the affirmative, for brains were subjected to diseases that increased their size but diminished their power; and it was well known that a brain of loose fibre and flabby consistence might be very large and yet its possessor no way distinguished for intellect. There was a Scotch saying that perhaps contained more truth on this subject than the dictum of the phrenologists—

“ Muckle head and little wit,  
Little head and not a bit.”

This saw seemed to give the preference to medium-sized heads, and he felt disposed to agree with it to a great extent. He had felt it his duty to make this protest against Dr. Donovan's phrenological conclusions, and to show why it was that medical men who were at the same time physiologists—and all medical men ought to be physiologists, for physiology was a most important branch of medical study,—could not assent to the phrenologists' doctrine of the localization of the cerebral faculties. To this end he had cited a few well authenticated facts, but there were hundreds of others of the same kind that might have been adduced, and that were familiar to all physiologists, and equally conclusive against the phrenological localization of the cerebral faculties.

Mr. COX, alluding to the practice of the Indians of Vancouver's Island of flattening the heads of children by subjecting them to pressure, said that the Indians, with heads flattened in that manner, were quite as intelligent as the others who had their heads of the natural shape. In fact, a flattened head was considered a mark of superiority, the flattening process being only practised on the children of the chiefs. He thought that there were a great many other points besides the form of the brain to be taken into consideration as indications of intelligence; among other things the expression of the face should be taken into account.

Mr. BURNS made some observations in support of the general principles of phrenology which he said had been founded on the observation of facts, and he recommended that the Society should put phrenology to the test of experience.

Mr. MACKENZIE adduced some remarkable instances of small brains being accompanied with singular intellectual development. There were no doubt cases in which large heads produced great results; such cases might be seen in Goethe and Swedenborg—but Schiller and Shakespeare had moderate sized heads—while Dante's and the Greek heads were remarkably small. One instance was that of Fortunio Licetus, a writer of the sixteenth century, who was born very abnormally, but who lived till eighty. He produced as many as forty books, one particularly entitled *Gonopsychanthropologia de Origine Animæ humanæ*, bearing on the very subject of this evening's discussion. He regretted that he could not coincide in the conclusions of Dr. Donovan, nor in the teachings of the empirical science of phrenology.

Dr. DONOVAN said that at so late an hour he could not possibly reply to the objections made to the propositions of phrenology which he had put before the Society, but which he must say were not at all

properly discussed. He was glad to hear Mr. Dendy admit that the brain is the great mind organ, a fact which is by no means generally recognised. Why, he asked, do not sceptics resort to experiment as regards the power of a phrenological adept to delineate character from cranial development. For his own part he would not hesitate to take any dozen persons in that room, utter strangers to him, and write their characters from their cerebral organization. Unless anthropologists made the relations of mind and brain their chief study, their science could make little progress.

This being the last ordinary meeting of the session, it was adjourned to November 3rd.

2ND SEPTEMBER, 1868.

SPECIAL GENERAL MEETING.

DR. JAMES HUNT, F.S.A., PRESIDENT, IN THE CHAIR.

The meeting was convened by circular "for the purpose of considering and determining upon a Resolution, carried unanimously by the Council, recommending the expulsion from the Society of Mr. Hyde Clarke, for conduct calculated to injure the Society."

Dr. DUNCAN proposed the following resolution :—

"That a committee of five fellows of the Anthropological Society of London who are neither members of the Council nor friends of Mr. Hyde Clarke be nominated, that shall report to a Special General Meeting of the Society upon the general and financial condition of the Society."

The PRESIDENT ruled that the resolution proposed was irregular, and could not be put.

The question was then put to the meeting :—"That the report from the Council be now read," and was carried by 28 to 6.

The DIRECTOR accordingly read the same, as follows :—

*Statement of the Director on behalf of the Council to Special General Meeting, 2nd September, 1868.*

The Council consider Mr. Hyde Clarke's conduct renders him deserving of expulsion :—

1. For having committed to the public press certain complaints against the management of the Society, without previously stating them to the President, Director, or Council.
2. For having made statements injurious to the Society, without taking steps to ascertain their correctness.

They consider his conduct in these respects ungentlemanly, and that, therefore, he is not a fit person to remain a fellow of the Society.

They consider further that the following statements made in Mr. Hyde Clarke's letter of the 21st August show that his object in taking these steps was to injure the Society :—

1. "Many fellows have determined to leave your Society, and to join a society where they can pursue the study of science without being